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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,762	01/23/2001	Walter R. Harfmann	0869.073	3754

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EXAMINER

KUHNS, ALLAN R

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/768,762Applicant(s)  
HARF MANNExaminer  
KUHN SGroup Art Unit  
1732

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on SEPT. 19, 2003
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-17 AND 44-62 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-8, 10-11, 14-17, 44-53 AND 57-62 is/are rejected.
- ☒ Claim(s) 9, 12-13 AND 54-56 is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 9 ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other \_\_\_\_\_

Office Action Summary

1.The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.Claim 1 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (5,567,742). Park discloses the basic claimed method of producing polymer foam including heating a polymer resin to a melt temperature therefor, selecting at least one blowing agent consisting of at least one ambient gas, combining the heated polymer with the blowing agent to create a mixture, and extruding polymer foam from the mixture having a density of less than 0.15 g/cc. Note column 3, lines 7-9, column 3 lines 65-67 and column 4, lines 40-64. Park appears not to explicitly state that the foam produced is comparable in quality to that obtainable with hydrocarbon blowing agents but such would have been obvious to one of ordinary skill in the art since Park indicates at column 3, lines 7-49 that the foams may be made from either a hydrocarbon or an ambient gas.

Park teaches the use of blowing agents, as in claim 14, at column 3, lines 7-9, the cell size of claim 15 at column 4, lines 1-2, the thickness of claim 16, and the lack of gauge variation, as in claim 17, by stating at column 10, lines 35-57 that a foam free from corrugation may be produced as long as extrusion rates are sufficient.

3.Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanyasi. Sanyasi discloses the basic claimed method as set forth in claim 1, and the use of polystyrene, as in claim 44. Sanyasi suggests to one of ordinary skill in the art

that his process forms foams comparable to that produced by using hydrocarbon blowing agents by stating at column 6, lines 21-27 that a smooth uniform sheet is produced, and such would have been obvious to that one of ordinary skill in the art.

4.Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park as applied to claims 1 and 14-17 above, and further in view of Wu et al. or GB 1,075,474 (Missbach). The relevant teachings of Wu et al. are as set forth in previous Office actions. Missbach teaches the use of a smoothly flared (page 2, line 16) expansion section. It would have been obvious to one of ordinary skill in the art to incorporate the teachings of Wu et al. or Missbach into the method of Park in order to produce a sheet having improved surface appearance or a sheet in which creases or trough zones are reduced or eliminated.

5.Claims 4-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park in view of Wu et al. or GB 1,075,474 as applied to claims 2-3 above, and further in view of Peters. The relevant teachings of Peters and reasons for combination are as set forth in prior Office actions.

6.Claims 45-47 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. The relevant teachings of Wu et al. are as set forth in previous Office actions.

7.Claims 48-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. as applied to claims 45-47 and 57 above, and further in view of Peters. The relevant teachings of Peters and reasons for combination with the teachings of Wu et al. are as set forth in previous Office actions.

8. Claims 58-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. as applied to claims 45-47 and 57 above, and further in view of Park (5,567,742). Wu et al. use limited amounts of ambient gas to produce relatively higher density foams, but Park indicates that with larger amounts of blowing agent, foams having density and other physical properties within the claimed ranges may be produced. It would have been obvious to one of ordinary skill in the art to incorporate these teachings of Park into the method of Wu et al. in order to produce foams of lower density. With regard to the "comparable in quality" phrase used in claim 45, it is submitted that such a phrase may be broadly interpreted as meaning "capable of being compared". In any event Park teaches at column 10 that at sufficient extrusion rates, the quality of the foams is not impaired with regard to corrugation.

9. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. as applied to claims 45-47 and 57 above, and further in view of Sanyasi as set forth in the rejection of claim 44 in the previous Office action.

10. Claims 9, 12-13 and 54-56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Applicant's arguments filed September 19, 2003 have been fully considered but they are not persuasive. Applicant's arguments are considered to be moot by the examiner based on the revised grounds of rejection introduced in this Office action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is 703-308-

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3462. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (703) 306-5493. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

*Allan R. Kuhns*

ALLAN R. KUHN  
PRIMARY EXAMINER AU 1732

12-01-03